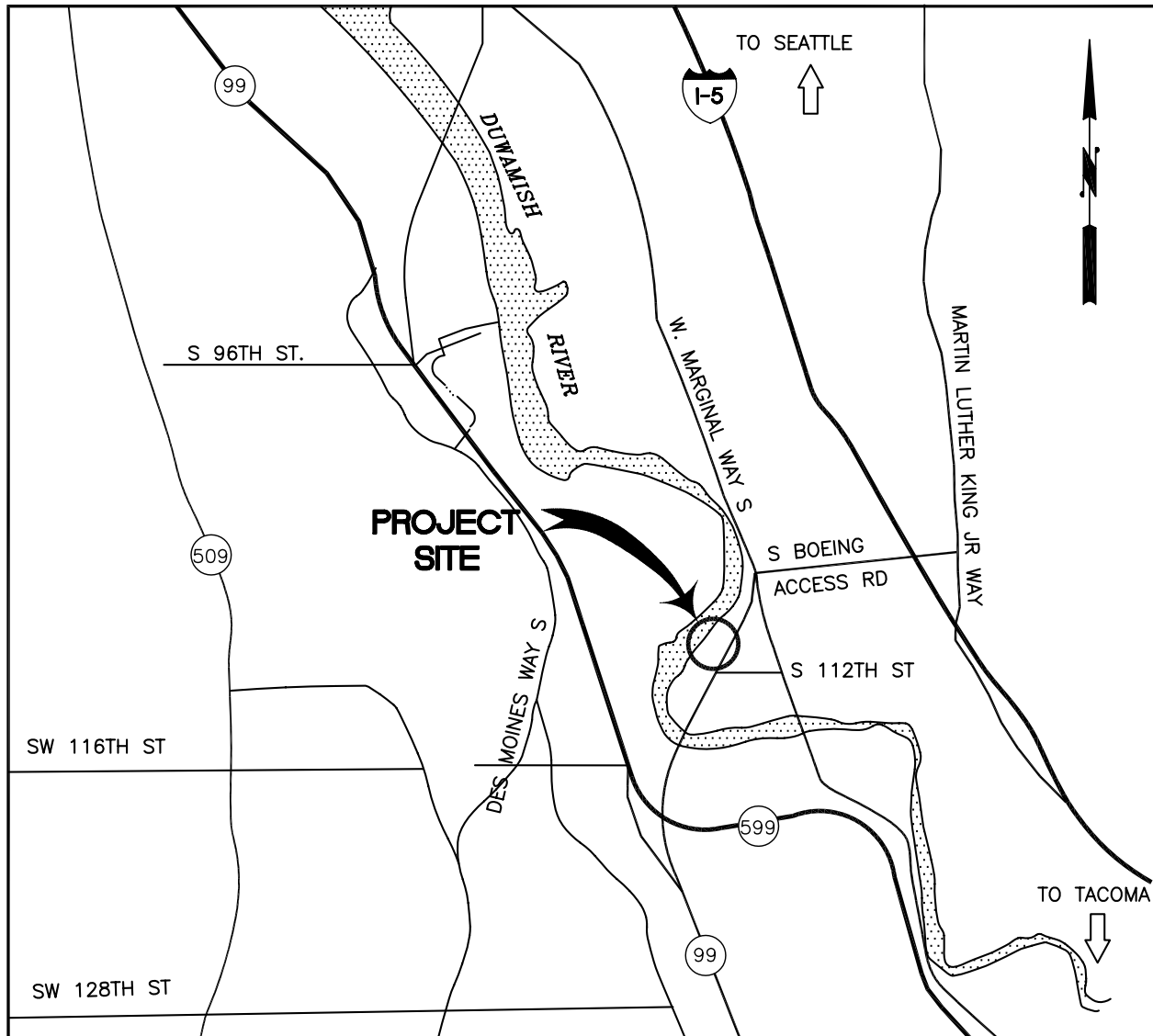


SITE PLAN

VICINITY MAP



INDEX

SHEET	DESCRIPTION
1	VICINITY MAP AND SHEET INDEX
2	LEGEND AND NOTES
3	GRADING PLAN AND NOTES
4	GRADING AND EROSION CONTROL NOTES
5	EROSION AND SEDIMENT CONTROL PLAN
6	CROSS SECTIONS
7	PLANTING PLAN, DETAIL AND NOTES
8	SOIL TEST PIT LOCATIONS

PROJECT DESCRIPTION:
NORTH WIND'S WEIR INTERTIDAL RESTORATION
VICINITY MAP AND INDEX SHEET

ADDRESS LINE 1:
DUWAMISH INTERTIDAL NEAR
2724 S. 112th ST.

CITY, COUNTY, STATE, ZIP CODE
TUKWILA, KING, WA, 98168

NOT TO SCALE

No. 1 Of 8 Sheets





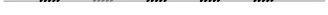

































APPLICANT:
USACE-Seattle District
King County DNRP

REFERENCE No.: PL-04-02

WATERWAY: DUWAMISH RIVER

S.T.R.: SE 1/4 S.4, T.23N, R.4E

LEGEND

	BOUNDARY (EXISTING, CURRENT SURVEY)
	BOUNDARY (REFERENCE, CURRENT SURVEY)
	CENTERLINE (EXISTING)
	PROPERTY LINE (EXISTING)
	ASPHALT CONCRETE PAVEMENT LINE
	CONCRETE PAVEMENT LINE / AREA
	CURB
	FENCE, CHAIN LINK
	FENCE, WOOD, SPLIT RAIL
	WETLAND (MARSH/SWAMP) PERIMETER
	RETAINING WALL
	CONTOUR (ITERATIVE)
	CONTOUR (INDEX)
	RIVERBANK/ShORELINE
	SANITARY SEWER
	POWER (AERIAL)
	STORM DRAINAGE
	RIGHT-OF-WAY (EXISTING)
	WATER VALVE
	TRANSMISSION TOWER
	UTILITY POLE
	ANCHOR
	ROCK WEIR
	STORM MANHOLE
	BLOCK CORNER
	"X" SCRIBE
	HUB & TACK
	MONUMENT (SURFACE)
	TREE (DECIDUOUS)
	SANITARY SEWER MANHOLE
	TYPE 1 CATCH BASIN
	REBAR & CAP
	PROFILE DIRECTION
	SET NAIL & SHINER
	RAILROAD SPIKE
	SIGN
	NEW LOG w/ROOTWAD
	NEW ROOTWAD

NOTES:

1. THE PURPOSE OF THIS SURVEY WAS TO ILLUSTRATE VISIBLE IMPROVEMENTS, SHOWN HEREON.
2. HORIZONTAL CONTROL (BASIS OF BEARING AND COORDINATES) ARE DERIVED FROM A FAST STATIC GPS SURVEY BASED ON THREE(3) WSDOT MONUMENTS.
2614 N=190033.799, E=1281712.332, ELEV.=23.420, GP17005-72
3294 N=209324.816, E=1268664.417, ELEV.=16.181, GP17009-239
2626 N=206301.040, E=1273368.009, ELEV.=17.619, GP17005-184
ALL VERTICAL CONTROL IS BASE ON NGS #SY0264 APSSM FOUND POSITION:
N=223028.637, E=269578.098, WITH PUBLISHED ELEVATION OF 16.20
3. VERTICAL DATUM IS NAVD88, BASED ON U.S. DEPARTMENT OF COMMERCE, NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, NATIONAL OCEAN SERVICE TIDAL BENCH MARK PID#SY0284 (USGS TIDAL 16), ELEVATION=16.20
4. THIS SURVEY WAS PERFORMED OCTOBER OF 2002.

BOUNDARY NOTES:

THE BOUNDARY SHOWN HEREON IS BASED ON THE KING COUNTY ASSESSOR PLAT OF THE AREA, AUGMENTED BY THE WASHINGTON DEPARTMENT OF TRANSPORTATION DRAWING OF S.R. 99. NO TITLE REPORT WAS FURNISHED TO APS SURVEY&MAPPING, L.L.C. AND ACTUAL PROPERTY LOCATION MAY VARY.

PROJECT DESCRIPTION:
NORTH WIND'S WEIR INTERTIDAL RESTORATION
LEGEND AND NOTES

ADDRESS LINE 1:
DUWAMISH INTERTIDAL NEAR
2724 S. 112TH ST.

CITY, COUNTY, STATE, ZIP CODE
TUKWILA, KING, WA, 98168

NO SCALE

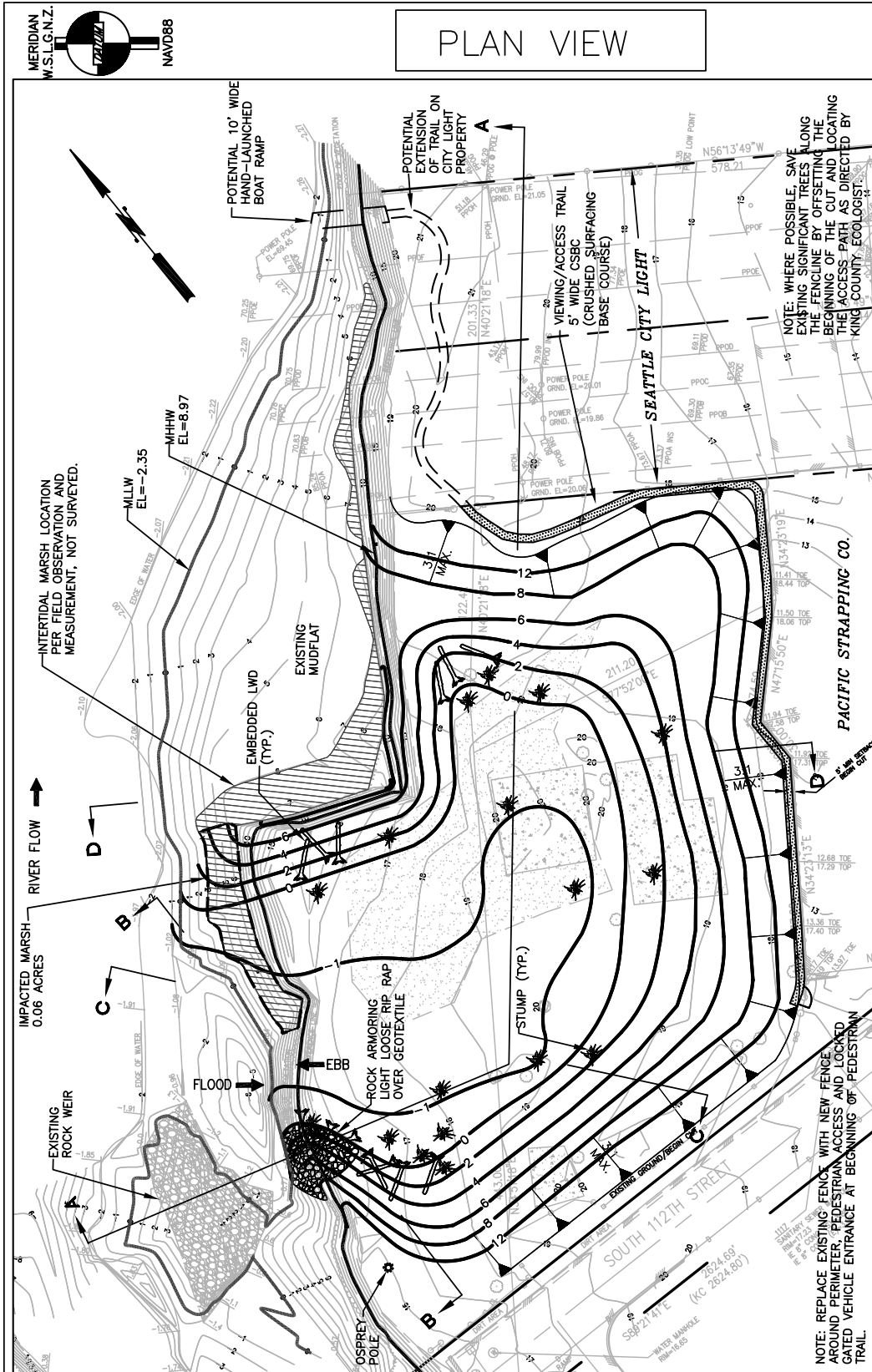
No. 2 Of 8 Sheets

APPLICANT:
USACE-Seattle District
King County DNRP

REFERENCE No.: PL-04-02

WATERWAY: DUWAMISH RIVER

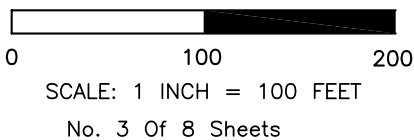
S.T.R.: SE 1/4 S.4, T.23N, R.4E



PROJECT DESCRIPTION:
NORTH WIND'S WEIR INTERTIDAL RESTORATION
GRADING PLAN AND NOTES

ADDRESS LINE 1:
DUWAMISH INTERTIDAL NEAR
2724 S. 112TH ST.

CITY, COUNTY, STATE, ZIP CODE
TUKWILA, KING, WA, 98168



APPLICANT:
USACE—Seattle District
King County DNRP

REFERENCE No.: PL-04-02

WATERWAY: DUWAMISH RIVER

S.T.R.: SE 1/4 S.4, T.23N, R.4E

NOTE: TO CONVERT TO SEATTLE AREA TIDE TABLES
DATUM, ADD 2.35 FT.

NAVD 88	SEATTLE AREA TIDE TABLES
MHHW 8.97	11.32
MHW 8.12	10.47
MLW .47	2.82
MLLW -2.35	0



MORE NOTES
SEE SHEET 4 OF 8

TEMPORARY EROSION AND SEDIMENTATION CONTROL (TESC) NOTES

1. The implementation of these TESC plans and the construction, maintenance, replacement, and upgrading of these TESC facilities is the responsibility of the TESC supervisor until all construction is approved.
2. The boundaries of the clearing limits shown on this plan shall be clearly identified by a continuous length of survey tape (or fencing, if required) prior to construction. During the construction period, no disturbance beyond the clearing limits shall be permitted. The clearing limits shall be maintained by the TESC supervisor for the duration of construction.
3. The TESC facilities shown on this plan must be constructed prior to or in conjunction with all clearing and grading so as to ensure that the transport of sediment to surface waters, drainage systems, and adjacent properties is minimized.
4. The TESC facilities shown on this plan are the minimum requirements for anticipated site conditions. During the construction period, these TESC facilities shall be upgraded as needed for unexpected storm events and modified to account for changing site conditions (e.g. additional sump pumps, relocation of ditches and silt fences, etc.).
5. The TESC facilities shall be inspected daily by the TESC supervisor and maintained to ensure continued proper functioning. Written records shall be kept of weekly reviews of TESC facilities during wet season (Oct. 1 to March 31) and monthly reviews during the dry season (April 1 to Sept. 30)
6. Any areas of exposed soils, including roadway embankments, that will not be disturbed for two days during the wet season or seven days during the dry season shall be immediately stabilized with the approved TESC methods (e.g., seeding, mulching, plastic covering, etc.).
7. Any area needing TESC measures, not requiring immediate attention, shall be addressed within fifteen (15) days.
8. The TESC facilities on inactive sites shall be inspected and maintained a minimum of once a month or 48 hours following a storm event.
9. The clearing operation shall not flush sediment-laden water into the downstream system.
10. Stabilized construction entrances and roads shall be installed at the beginning of construction and maintained for the duration of the project. Additional measures, such as wash pads may be required to ensure that all paved areas are kept clean for the duration of the project.
11. Where straw mulch for temporary erosion control is required, it shall be applied at a minimum thickness.

TESC CONSTRUCTION SEQUENCE

1. Pre-construction
2. Flag or fence clearing limits.
3. Post sign with name and phone number of TESC supervisor.
4. Grade and install construction entrance(s).
5. Install perimeter protection (silt fence, brush barrier, etc.).
6. Construct sediment ponds and traps.
7. Grade and stabilize construction roads.
8. Construct surface water controls (interceptor dikes, pipe slope drains, etc.) simultaneously with clearing and grading for project development.
9. Maintain erosion control measures in accordance with King County standards and manufacturer's recommendations.
10. Relocate erosion control measures or install new measures so that as site conditions change the erosion and sediment control is always in accordance with the King County TESC minimum requirements.
11. Cover all areas that will be unworked for more than seven days during the dry season or two days during the wet season with straw, wood fiber mulch, compost, plastic sheeting or equivalent.
12. Stabilize all areas that reach final grade within seven days.
13. Seed or sod any areas to remain unworked for more than 30 days.
14. Upon completion of project, all disturbed areas must be stabilized and bumps removed if appropriate.

CONSTRUCTION SEQUENCE/NOTES

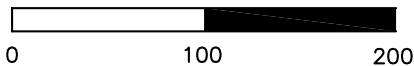
1. IMPLEMENT THE TESC CONSTRUCTION SEQUENCE.
2. CLEAR AND GRUB EXISTING VEGETATION AND REMOVE EXISTING CONCRETE PADS.
3. EXCAVATE THE INTERIOR OF THE SITE TO DESIGN GRADES LEAVING AN EARTHEN BERM OF EXISTING SOIL AS A BARRIER BETWEEN THE EXCAVATION AND THE DUWAMISH RIVER.
4. THE EARTHEN BERM WILL HAVE A MINIMUM TOP WIDTH THAT IS THE GREATER OF 15 FT. OR AS DETERMINED BY THE GEOTECHNICAL ENGINEER. SIDE SLOPE OF THE BERM SHALL BE A MINIMUM OF 2H: 1 V OR AS DETERMINED BY THE GEOTECHNICAL ENGINEER. THE TOP ELEVATION OF THE EARTHEN BERM WILL BE A MINIMUM OF 1 FOOT HIGHER THAN THE EXPECTED HIGH TIDE ELEVATION THROUGH THE DURATION OF CONSTRUCTION.
5. WHERE PETROLEUM CONTAMINATED SOILS ARE ENCOUNTERED, OVER EXCAVATE A MINIMUM OF 2 FEET BELOW PETROLEUM TAINED SOILS AS DIRECTED BY CORPS OR KING COUNTY CONSTRUCTION MANAGER. LIMITS OF CONTAMINATED SOILS WILL BE VERIFIED IN THE FIELD AND/OR WITH LAB TESTING PRIOR TO FINAL GRADING.
6. CONTAMINATED SOILS WILL BE STOCKPILED SEPARATELY AND BE TRANSPORTED TO AN APPROVED DISPOSAL SITE IN ACCORDANCE WITH APPLICABLE FEDERAL AND STATE REGULATIONS.
7. IN AREAS OF OVER EXCAVATION, BACKFILL WITH CLEAN NATIVE MATERIAL APPROVED BY THE CORPS OR KING COUNTY BIOLOGISTS. BACKFILL MATERIAL SHALL BE SUITABLE FOR PLANTING, BUT NEED NOT BE CLASSIFIED AS TOPSOIL. IF SUITABLE NATIVE SOIL IS NOT AVAILABLE, BACKFILL WITH TOPSOIL OR EQUIVALENT MIX AS APPROVED BY KC OR COE BIOLOGIST.
8. IN AREAS SHOWN ON THE PLANTING PLAN FOR VEGETATION, UNSUITABLE EXISTING MATERIAL WILL BE OVEREXCAVATED BELOW DESIGN GRADE TO A DEPTH AS DIRECTED BY CORPS OR KING COUNTY BIOLOGISTS AND BACKFILLED WITH MATERIAL SUITABLE FOR PLANTING.
9. INSTALL LWD PER THE SITE PLAN.
10. HYDROSEED ABOVE MHW. PLACE JUTE/COIR FABRIC ON 3:1 SLOPES BELOW MHW.
11. INSTALL PLANTINGS PER THE PLANTING PLAN.
12. REMOVE THE EARTHEN BERM, MAKING THE CONNECTION BETWEEN THE SITE AND THE DUWAMISH RIVER.
13. THE EXCAVATION OF THE EARTHEN BERM SHALL BE TIMED WITH TIDAL CYCLE TO MINIMIZE EROSION. THIS MAY REQUIRE THE BERM TO BE REMOVED IN STAGES. IF THE ENTIRE BERM CANNOT BE REMOVED WHILE THE TIDE IS OUT, THE EXPOSED OPENING AND SIDE SLOPES WILL BE COVERED WITH PLASTIC SHEETING AND ANCHORED DOWN WITH SAND BAGS TO PREVENT EROSION WHEN THE TIDE COMES BACK IN.
14. IF THE EXCAVATION OF THE EARTHEN BERM MUST BE DONE IN STAGES, THEN THE OPENING IN THE EARTHEN BERM MUST BE A MINIMUM OF X FEET WIDE PRIOR TO THE RETURN OF THE HIGHER TIDES (DETERMINED BY HYDRAULICS ENGINEER), OTHERWISE ANOTHER METHOD MUST BE CHOSEN. THIS IS TO PREVENT SIDE CUTTING OF THE SLOPES AND EROSION CAUSED BY HIGHER VELOCITIES OF THE TIDE FLOWING IN AND OUT OF AN OPENING CHANNEL THAT IS TOO SMALL IN SIZE.
15. INSTALL ACCESS/VIEWING PATH.
16. INSTALL OSPREY POLE.
17. INSTALL HAND LAUNCHED BOAT RAMP.

PROJECT DESCRIPTION:

NORTH WIND'S WEIR INTERTIDAL RESTORATION
GRADING AND EROSION CONTROL NOTES

ADDRESS LINE 1:
DUWAMISH INTERTIDAL NEAR
2724 S. 112TH ST.

CITY, COUNTY, STATE, ZIP CODE
TUKWILA, KING, WA, 98186



SCALE: 1 INCH = 100 FEET

No. 4 Of 8 Sheets

APPLICANT: USACE
USACE-Seattle District
King County DNRP

REFERENCE No.: PL-04-02

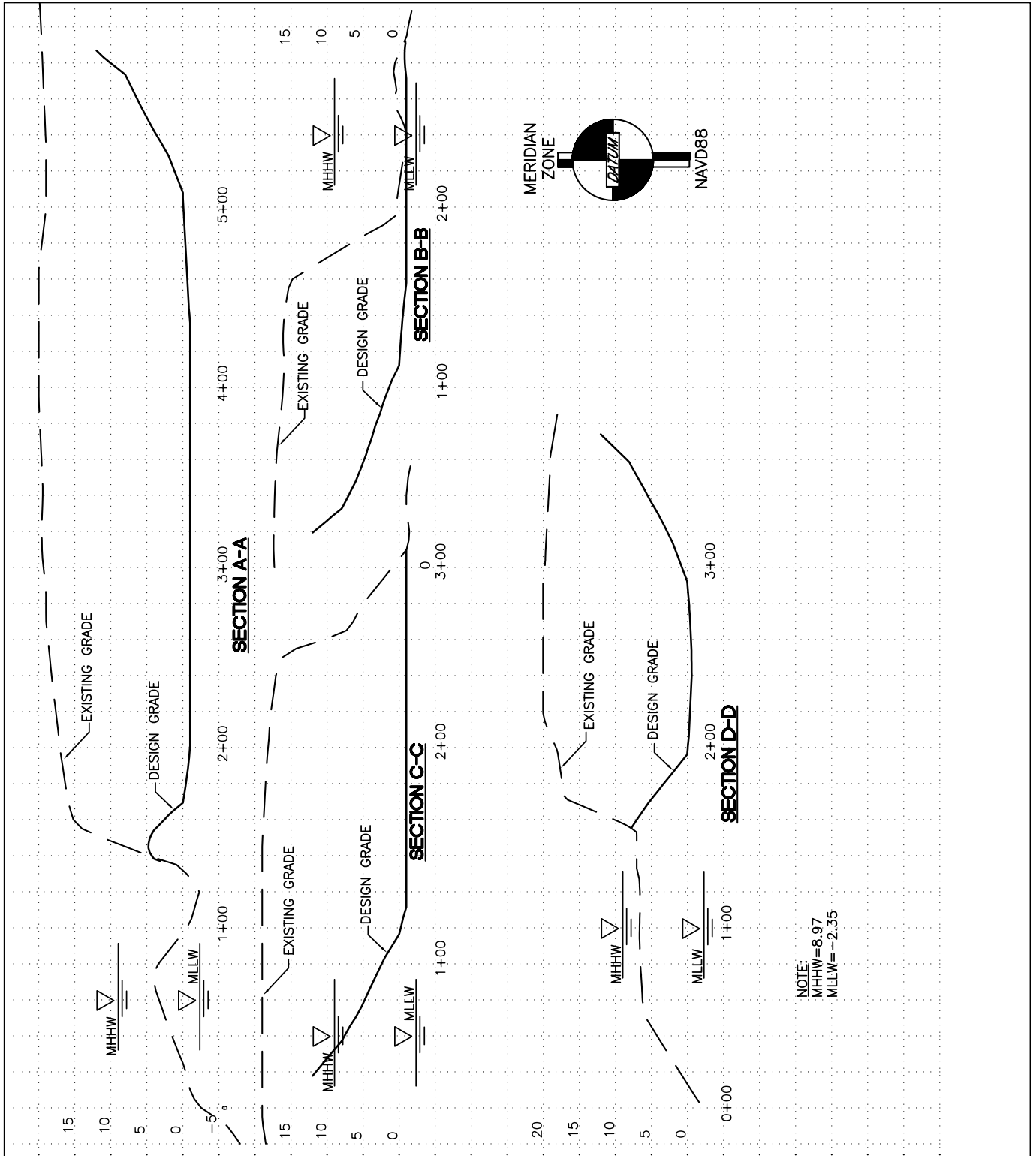
WATERWAY: DUWAMISH RIVER

S.T.R.: SE 1/4 S.4, T.23N, R.4E

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S.T.R.: SE 1/4 S.4, T.23N, R.4E

ELEVATION VIEW

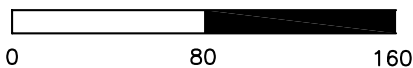


NOTE:
MHHW=8.97
MLLW=-2.35

PROJECT DESCRIPTION:
NORTH WIND'S WEIR INTERTIDAL RESTORATION
CROSS SECTIONS

ADDRESS LINE 1:
DUWAMISH INTERTIDAL NEAR
2724 S. 112TH ST.

CITY, COUNTY, STATE, ZIP CODE
TUKWILA, KING, WA, 98186



SCALE: 1 INCH = 80 FEET

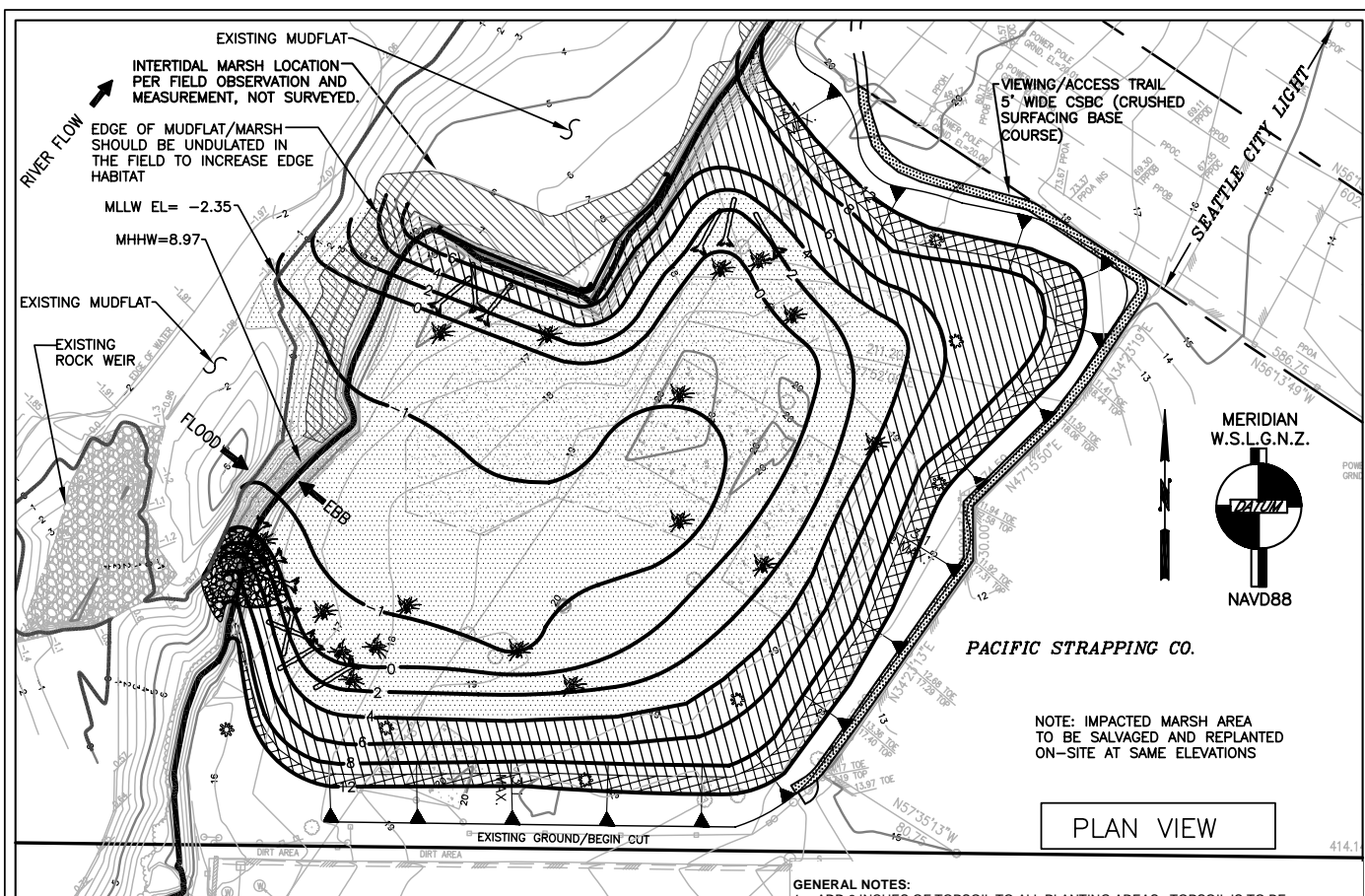
No. 6 Of 8 Sheets

APPLICANT:
USACE-Seattle District
King County DNRP

REFERENCE No.: PL-04-02

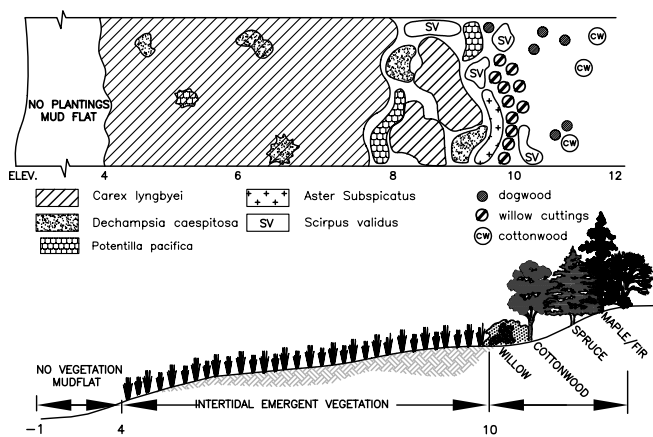
WATERWAY: DUWAMISH RIVER

S.T.R.: SE 1/4 S.4, T.23N, R.4E

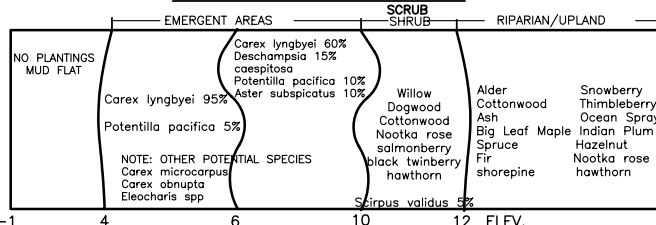


GENERAL NOTES:

1. ADD 6 INCHES OF TOPSOIL TO ALL PLANTING AREAS. TOPSOIL IS TO BE WORKED/TILLED INTO TOP 12 INCHES OF EXISTING SOIL.
2. MULCH AREAS ABOVE ELEV. 10 WITH 3 INCHES WOOD MULCH.



TYPICAL PLANTING IN EMERGENT AREAS



PROJECT GOALS AND OBJECTIVES

THE PURPOSE OF THIS PROJECT IS TO RESTORE IMPORTANT INTERTIDAL HABITAT WITHIN THE LOWER DUWAMISH RIVER, WITH THE INTENT OF SPECIFICALLY PROVIDING MUDFLAT AND SALTMARSH HABITATS SUITABLE FOR REARING AND FORAGING BY JUVENILE SALMONIDS. THIS WILL BE ACCOMPLISHED BY REGRADING THE PROJECT SITE TO INTERTIDAL ELEVATIONS, RECONNECTING THE SITE TO THE RIVER, RESTORING THE NATURAL SHORELINE, AND PLANTING NATIVE INTERTIDAL AND RIPARIAN VEGETATION. THE RESULTING INTERTIDAL MUDFLAT, SALT MARSH, AND RIPARIAN HABITATS WILL PROVIDE CRITICALLY IMPORTANT TRANSITIONAL HABITAT WHERE JUVENILE SALMONIDS WILL HAVE THE OPPORTUNITY TO FEED, REST, AND UNDERGO SMOLTIFICATION PRIOR TO OUT-MIGRATING THROUGH PUGET SOUND TO THE PACIFIC OCEAN. THESE HABITATS WILL ALSO PROVIDE IMPORTANT REFUGE, FORAGING, AND PERHAPS BREEDING HABITAT FOR A VARIETY OF OTHER URBAN-ADAPTED NATIVE FISH AND WILDLIFE SPECIES.

STANDARDS OF SUCCESS

THE PROJECT WILL BE DEEMED SUCCESSFUL IF THE DESIRED INTERTIDAL HABITATS WITH APPROPRIATE NATIVE PLANT COMMUNITIES ARE CREATED AND THE SITE DOES NOT EXPERIENCE SIGNIFICANT BANK EROSION. IT IS IMPORTANT TO NOTE THAT RIVERINE SYSTEMS ARE DYNAMIC AND MINOR ADJUSTMENTS IN ELEVATIONS AND PLANT COMMUNITIES ARE EXPECTED TO OCCUR OVER TIME.

CONTINGENCY PLAN

IF THE PROJECT FAILS TO MEET THE STATED GOALS AND OBJECTIVES, THE DESIGN TEAM WILL EVALUATE THE CONDITIONS AND IN CONSULTATION WITH PROJECT SPONSORS, LOCAL JURISDICTIONS AND REGULATORY AGENCIES, WILL PREPARE AND IMPLEMENT A CONTINGENCY PLAN TO ADDRESS THE DEFICIENCIES. AS THIS IS A NON-COMPENSATORY RESTORATION PROJECT, HOWEVER, THE DECISION TO PURSUE FURTHER ACTION THAT IS NOT REQUIRED TO PROTECT EXISTING ENVIRONMENTAL CONDITIONS, ADJACENT ROADWAYS, UTILITIES OR PRIVATE PROPERTY WILL BE AT THE DISCRETION OF THE DESIGN TEAM AND THE PROJECT SPONSORS.

NOTE: TO CONVERT TO SEATTLE AREA TIDE TABLES DATUM, ADD 2.35 FT.

NAVD 88	SEATTLE AREA TIDE TABLES
MHHW 8.97	11.32
MHW 8.12	10.47
MLW .47	2.82
MLLW -2.35	0

- ▲ RIPARIAN/UPLAND PLANTINGS 12-TOP OF SLOPE
- ▨ TRANSITION: SCRUB/SHRUBS (ELEV. 10-12)
- ▧ INTERTIDAL EMERGENT COMMUNITY (ELEV. 4-10)
- ░ MUDFLAT AREA: NO PLANTING PROPOSED (ELEV. -1 TO 4)
- ⊙ WILDLIFE NESTING BOX

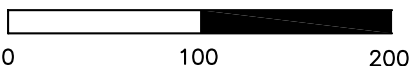
PROJECT DESCRIPTION:

NORTH WIND'S WEIR INTERTIDAL RESTORATION PLANTING PLAN, DETAIL AND NOTES

ADDRESS LINE 1:

DUWAMISH INTERTIDAL NEAR
2724 S. 112TH ST.

CITY, COUNTY, STATE, ZIP CODE
TUKWILA, KING, WA, 98186



SCALE: 1 INCH = 100 FEET

No. 7 Of 8 Sheets

APPLICANT:

USACE-Seattle District
King County DNRP

REFERENCE No.: PL-04-02

WATERWAY: DUWAMISH RIVER

S.T.R.: SE 1/4 S.4, T.23N, R.4E

PLAN VIEW

